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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,814	01/10/2002	Stanley K. Cheng	LWC/187	7857

30480 7590 08/22/2005
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EXAMINER

ALEXANDER, REGINALD

ART UNIT PAPER NUMBER

1761

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,814

Applicant(s)

CHENG, STANLEY K.

Examiner

Reginald L. Alexander

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-17, 19-21, 23-25 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng in view of Welhouse and Leendersen.

There is disclosed in Cheng a cooking pan comprising: a base 2 having an upper cooking surface, the surface being provided with a pattern of concentric corrugations 8 having ridges and grooves therebetween; and a non-stick coating 10 applied to the cooking surface. In regards to the claimed ridge to ridge spacing range, it is recited in Cheng that the range can be 2 mm or wider. See column 2, lines 25-30 and claim 1 where it is recited that the spacing can be "no more than about 2 mm". Cheng clearly discloses that a distance greater than 2 mm can be used. In regards to claims 13 and 20 and the ridge to ridge spacing range of 2.3 mm to 2.8 mm, it can be said that the disclosure of Cheng fits the claimed range. One skilled in the art would expect the same properties and results from the 2 mm disclosed in Cheng and the 2.3 mm – 2.8 mm range claimed. A prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). The phrase "about" allows for

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sizes above and below the designated size, which in this case is 2 mm. In regards to claim 21, 2.5 mm is "about" 2 mm.

Welhouse discloses a distance between a ridge top 15 and a groove bottom 17 in the range of 0.005" to 0.012". It would have been obvious to one skilled in the art to modify the ridge top to groove bottom distance of Cheng as taught by Welhouse, in order to improve the heat transfer and drainage performance of the cooking pan.

Leendersen discloses a non-stick coating formed of a flouropolymer (PTFE) and a ceramic filler (boron nitride). It would have been obvious to one skilled in the art to substitute the non-stick coating of Cheng with that disclosed in Leendersen, in order to improve upon the life expectancy of the coating.

In regards to the claimed radii of curvature being "about 4 mm", it is the opinion of the Examiner that such a desired range is accomplished by the combination of Cheng and Welhouse. The reason being that with the ranges being met the radius of curvature for the grooves could only be in the about 4 mm range.

In regards to claim 19 the above can be said about the range used to describe the ratio of the groove to groove spacing to the ridge top to groove bottom.

In regards to claims 16 and 24 and the use of stamping, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Claims 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 11 and 18 above, and further in view of Tsai.

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Tsai discloses an article of cookware having a base formed of stainless steel having a roughened cooking surface formed by arc spraying to improve adhesion of a non-stick coating.

It would have been obvious to one skilled in the art to modify the base of Cheng, as modified by Welhouse, with that taught by Tsai, in order to improve the adhesion of the non-stick layer.

Claims 14, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 12 and 19 above, and further in view of Doyle et al.

Doyle discloses that it is known in the art to have a cooking surface formed of projections 44, 46, 48 having a ridge to ridge spacing of about 2.8 mm (col. 4, lines 9-11).

It would have been obvious to one skilled in the art to modify the cooking surface of Cheng, as modified by Welhouse, with that taught by Doyle, in order to improve the heat transfer and drainage performance of the cooking pan.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Gazo et al. is cited for its disclosure of a fluoropolymer and ceramic coating.

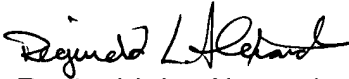
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reginald L. Alexander whose telephone number is 571-272-1395. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

rla
August 18, 2005


Reginald L. Alexander
Primary Examiner
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